In the Claims:

Claims 1-105 (Canceled).

106. (Original) A process for preparing (branched-alkyl) arylsulfonates comprising:

hydrocracking and hydroisomerizing a paraffinic wax to produce an isoparaffinic composition comprising 0.5% or less quaternary carbon atoms, said isoparaffinic composition comprising paraffins having a carbon number of from about 7 to about 18, at least a portion of said paraffins being branched paraffins comprising an average number of branches per paraffin molecule of at least 0.5, said branches comprising a first number of methyl branches and optionally a second number of ethyl branches;

exposing said isoparaffinic composition to a dehydrogenation catalyst in an amount and under dehydrogenation conditions effective to dehydrogenate said branched paraffins and to produce a mixture comprising branched olefins and unconverted paraffins, said branched olefins comprising 0.5% or less quaternary carbon atoms;

contacting said branched olefins with an aromatic hydrocarbon in the presence of a quantity of an alkylation catalyst under alkylation conditions effective to alkylate said aromatic hydrocarbon, producing branched alkyl aromatic hydrocarbons comprising 0.5% or less quaternary carbon atoms;

sulfonating said branched alkyl aromatic hydrocarbons.

107. (Original) The process of claim 106 wherein said aromatic hydrocarbon is selected from the group consisting of one or more of benzenes, toluenes, xylenes, and naphthalenes.

108. (Original) The process of claim 106 wherein said aromatic hydrocarbon is benzene.

109. (Original) The process of claim 106 wherein said alkylation conditions are effective to predominately monoalkylate said aromatic hydrocarbon.

110. (Original) The process of claim 106 wherein said alkylation catalyst is selected from the group consisting of zeolites comprising pores having pore size dimensions of from about 4 to about 9 Å.

111. (Original) The process of claim 106 wherein said alkylation catalyst comprises one or more zeolites in acidic form selected from the group consisting of zeolite Y, ZSM-5, ZSM-11, mordenite, ZSM-4, ZSM-12, ZSM-20, offretite, gemelinite, cancrinite, and zeolites having an NES zeolite structure type.

112. (Original) The process of claim 106 wherein alkylation catalyst is a zeolite having an isotypic framework structure selected from the group consisting of NU-87 and gottardiite.

113. (Original) The process of claim 110 wherein said zeolites have a framework molar ratio of Si to Al of from about 5:1 to about 100:1.

114. (Original) The process of claim 111 wherein said zeolite has said NES zeolite structure type and has a framework molar ratio of Si to Al of from about 5:1 to about 25:1.

115. (Original) The process of claim 110 wherein said zeolites comprise cationic sites, at least a portion of said cationic sites being occupied by replacing ions selected from the group other than alkali metal ions and alkaline earth metal ions.

116. (Original) The process of claim 115 wherein said replacing ions are selected from the group consisting of ammonium, hydrogen, rare earth metals, and combinations thereof.

117. (Original) The process of claim 115 wherein at least 50% of cationic sites on said zeolites are in hydrogen form.

118. (Original) The process of claim 115 wherein at least 90% of cationic sites on said zeolites are in hydrogen form.

119. (Original) The process of claim 110 wherein said alkylation catalyst comprises pellets comprising at least 50 %w of said zeolite.

120. (Original) The process of claim 106 wherein said quantity of said alkylation catalyst is from about 1 to about 50%w relative to the weight of said branched olefins in said mixture.

121. (Original) The process of claim 106 wherein said isoparaffinic composition comprises at least about 50 %w branched paraffins.

122. (Original) The process of claim 106 wherein said first number is at least about 50% of said branches.

123. (Original) The process of claim 106 wherein at least 75 %w of said branched paraffins in said isoparaffinic composition represent a range of molecules of which the heaviest molecules comprises at most 6 carbon atoms more than the lightest molecules.

124. (Original) The process of claim 106 wherein said isoparaffinic composition comprises paraffins having a carbon number in the range of from 7 to 35.

125. (Original) The process of claim 106 wherein at least 75%w of said isoparaffinic composition consists of paraffins having a carbon number in the range of from 10 to 18.

126. (Original) The process of claim 106 wherein at least 75%w of said isoparaffinic composition consists of paraffins having a carbon number in the range of from 11 to 14.

127. (Original) The process of claim 106 wherein said average number of branches is at least 0.7.

128. (Original) The process of claim 106 wherein said average number of branches is at most 2.0.

129. (Original) The process of claim 106 wherein said average number of branches is at most 1.8.

130. (Original) The process of claim 106 wherein said first number of methyl branches is at least 50% of said branches.

131. (Original) The process of claim 106 wherein said second number of ethyl branches is at most 10% of said branches.

Claims 132-154 (Canceled).

155. (New) A process for preparing (branched-alkyl) arylsulfonates comprising:

hydroisomerizing a paraffinic wax to produce an isoparaffinic composition comprising 0.5% or less quaternary carbon atoms, said isoparaffinic composition comprising paraffins having a carbon number of from about 7 to about 18, at least a portion of said paraffins being branched paraffins comprising an average number of branches per paraffin molecule of at least 0.5, said branches comprising a first number of methyl branches and optionally a second number of ethyl branches;

exposing said isoparaffinic composition to a dehydrogenation catalyst in an amount and under dehydrogenation conditions effective to dehydrogenate said branched

paraffins and to produce a mixture comprising branched olefins and unconverted paraffins, said branched olefins comprising 0.5% or less quaternary carbon atoms;

contacting said branched olefins with an aromatic hydrocarbon in the presence of a quantity of an alkylation catalyst under alkylation conditions effective to alkylate said aromatic hydrocarbon, producing branched alkyl aromatic hydrocarbons comprising 0.5% or less quaternary carbon atoms;

sulfonating said branched alkyl aromatic hydrocarbons.

156. (New) The process of claim 155 wherein said aromatic hydrocarbon is selected from the group consisting of one or more of benzenes, toluenes, xylenes, and naphthalenes.

157. (New) The process of claim 155 wherein said aromatic hydrocarbon is benzene.

158. (New) The process of claim 155 wherein said alkylation conditions are effective to predominately monoalkylate said aromatic hydrocarbon.

159. (New) The process of claim 155 wherein said alkylation catalyst is selected from the group consisting of zeolites comprising pores having pore size dimensions of from about 4 to about 9 Å.

160. (New) A process for preparing (branched-alkyl) arylsulfonates comprising:

hydroisomerizing a paraffinic wax to produce an isoparaffinic composition comprising 0.5% or less quaternary aliphatic carbon atoms, said isoparaffinic composition comprising paraffins having a carbon number of from about 7 to about 18, at least a portion of said paraffins being branched paraffins comprising an average number of branches per paraffin molecule of at least 0.5, said branches comprising a first number of methyl branches and optionally a second number of ethyl branches;

exposing said isoparaffinic composition to a dehydrogenation catalyst in an amount and under dehydrogenation conditions effective to dehydrogenate said branched paraffins and to produce a mixture comprising branched olefins and unconverted paraffins, said branched olefins comprising 0.5% or less quaternary aliphatic carbon atoms;

contacting said branched olefins with an aromatic hydrocarbon in the presence of a quantity of an alkylation catalyst under alkylation conditions effective to alkylate

said aromatic hydrocarbon, producing branched alkyl aromatic hydrocarbons comprising 0.5% or less quaternary aliphatic carbon atoms;

sulfonating said branched alkyl aromatic hydrocarbons.